



# **Building Consistency Meeting**

Residential

Date: 9/3/2008 Recorder and minutes prepared by: Danny Wooten/Jeff Griffin

**Staff present:** Jeff Griffin, Danny Wooten, David Williams, Tony Kiser, Tim Taylor, Steve Kellen, Yates Smith, Ron Dishman, Harold Sinclair, Paul Cupp, Walt Nash, Rob Ellis, Patrick Biddy, Eric Brown, Scott Linhardt, George Rogers,

**Public present:** Hans Kasak/Greg Sloan (**Ryland Homes**); Daniel McBride (**Cunnane Group**); Jason Whitener (**Dienst Custom Homes**); Wayne Carter (**Evergreen Homebuilders**); Bob Mckee (**Ryan Homes**); Rob Merrell (**Griffin Masonry**); Terry Cleary (**Meeting Street Homes**); Warren Lambert (**DR Horton**); David Piddock/Chad Hughes/Michael Najulra (**Barefoot & Co**); Timothy Lawrence (**Intelligent Design Eng**); Darren Price/Charles Sofirowski (**M/I homes**); Darek Burns (**Beazer Homes**); Scott Cummings (**Dow chemical**); Brad Crysler (**John Wieland Homes**); Jack Glunt (**Standard Pacific Homes**); Beverly Newell (**16 Penny Const**); A. Wynn Yates (**Yates/Smith engineering, PA**); David Schwieman (**DR Schwieman, Inc**); Matthew Klapheke/Ryan Zondervan (**McCar Homes**)

Topics/Subject	Decisions/Conclusions/Actions																																																																																																																																																																										
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Window openings is new addition walls	<p>Question asked about the windows used in additions for older homes in which contain window openings that are non-conforming to the building thermal envelope requirements of current codes. Can a non-conforming window also be installed in the addition. The Code requires any new addition to meet the requirements of the code at the time of the addition, which will include the fenestrations requirements as found in Table N1102.1 below also the SHGC found in N1102.2 of .40.</p> <div><p>TABLE N1102.1 SIMPLIFIED PRESCRIPTIVE BUILDING ENVELOPE THERMAL COMPONENT CRITERIA MINIMUM REQUIRED THERMAL PERFORMANCE (U-FACTOR AND R-VALUE)</p><table><tr><th colspan="2">BUILDING LOCATION</th><th rowspan="2">MAXIMUM GLAZING U-FACTOR [Btu/(hr·ft²·°F)]</th><th colspan="6">MINIMUM INSULATION R-VALUE [(hr · ft² · °F) / Btu]</th></tr><tr><th>Climate Zone</th><th>HDD</th><th>Ceilings</th><th>Walls</th><th>Floors</th><th>Basement walls</th><th>Slab perimeter R-value and depth</th><th>Crawl space walls</th></tr><tr><td>1</td><td>0-499</td><td>Any</td><td>R-13</td><td>R-11</td><td>R-11</td><td>R-0</td><td>R-0</td><td>R-0</td></tr><tr><td>2</td><td>500-999</td><td>0.90</td><td>R-19</td><td>R-11</td><td>R-11</td><td>R-0</td><td>R-0</td><td>R-4</td></tr><tr><td>3</td><td>1,000-1,499</td><td>0.75</td><td>R-19</td><td>R-11</td><td>R-11</td><td>R-0</td><td>R-0</td><td>R-5</td></tr><tr><td>4</td><td>1,500-1,999</td><td>0.75</td><td>R-26</td><td>R-13</td><td>R-11</td><td>R-5</td><td>R-0</td><td>R-5</td></tr><tr><td>5</td><td>2,000-2,499</td><td>0.65</td><td>R-30</td><td>R-13</td><td>R-11</td><td>R-5</td><td>R-0</td><td>R-6</td></tr><tr><td>6</td><td>2,500-2,999</td><td>0.40</td><td>R-30</td><td>R-13</td><td>R-19</td><td>R-6</td><td>R-0</td><td>R-7</td></tr><tr><td>7</td><td>3,000-3,499</td><td>0.40</td><td>R-30</td><td>R-13</td><td>R-19</td><td>R-7</td><td>R-0</td><td>R-8</td></tr><tr><td>8</td><td>3,500-3,999</td><td>0.40</td><td>R-30</td><td>R-13</td><td>R-19</td><td>R-8</td><td>R-5, 2 ft.</td><td>R-10</td></tr><tr><td>9</td><td>4,000-4,499</td><td>0.40</td><td>R-38</td><td>R-13</td><td>R-19</td><td>R-8</td><td>R-5, 2 ft.</td><td>R-11</td></tr><tr><td>10</td><td>4,500-4,999</td><td>0.45</td><td>R-38</td><td>R-16</td><td>R-19</td><td>R-9</td><td>R-6, 2 ft.</td><td>R-17</td></tr><tr><td>11</td><td>5,000-5,499</td><td>0.40</td><td>R-38</td><td>R-18</td><td>R-19</td><td>R-9</td><td>R-6, 2 ft.</td><td>R-17</td></tr><tr><td>12</td><td>5,500-5,999</td><td>0.40</td><td>R-38</td><td>R-18</td><td>R-21</td><td>R-10</td><td>R-9, 4 ft.</td><td>R-19</td></tr><tr><td>13</td><td>6,000-6,499</td><td>0.35</td><td>R-38</td><td>R-18</td><td>R-21</td><td>R-10</td><td>R-9, 4 ft.</td><td>R-20</td></tr><tr><td>14</td><td>6,500-6,999</td><td>0.35</td><td>R-49</td><td>R-21</td><td>R-21</td><td>R-11</td><td>R-11, 4 ft.</td><td>R-20</td></tr><tr><td>15</td><td>7,000-8,499</td><td>0.35</td><td>R-49</td><td>R-21</td><td>R-21</td><td>R-11</td><td>R-13, 4 ft.</td><td>R-20</td></tr><tr><td>16</td><td>8,500-8,999</td><td>0.35</td><td>R-49</td><td>R-21</td><td>R-21</td><td>R-18</td><td>R-14, 4 ft.</td><td>R-20</td></tr><tr><td>17</td><td>9,000-12,999</td><td>0.35</td><td>R-49</td><td>R-21</td><td>R-21</td><td>R-19</td><td>R-18, 4 ft.</td><td>R-20</td></tr></table><p>For SI: 1 Btu/(hr·ft²·°F) = 5.68W/m²·K, 1 (hr·ft²·°F)/Btu = 0.176m²·K/W.</p></div>	BUILDING LOCATION		MAXIMUM GLAZING U-FACTOR [Btu/(hr·ft²·°F)]	MINIMUM INSULATION R-VALUE [(hr · ft² · °F) / Btu]						Climate Zone	HDD	Ceilings	Walls	Floors	Basement walls	Slab perimeter R-value and depth	Crawl space walls	1	0-499	Any	R-13	R-11	R-11	R-0	R-0	R-0	2	500-999	0.90	R-19	R-11	R-11	R-0	R-0	R-4	3	1,000-1,499	0.75	R-19	R-11	R-11	R-0	R-0	R-5	4	1,500-1,999	0.75	R-26	R-13	R-11	R-5	R-0	R-5	5	2,000-2,499	0.65	R-30	R-13	R-11	R-5	R-0	R-6	6	2,500-2,999	0.40	R-30	R-13	R-19	R-6	R-0	R-7	7	3,000-3,499	0.40	R-30	R-13	R-19	R-7	R-0	R-8	8	3,500-3,999	0.40	R-30	R-13	R-19	R-8	R-5, 2 ft.	R-10	9	4,000-4,499	0.40	R-38	R-13	R-19	R-8	R-5, 2 ft.	R-11	10	4,500-4,999	0.45	R-38	R-16	R-19	R-9	R-6, 2 ft.	R-17	11	5,000-5,499	0.40	R-38	R-18	R-19	R-9	R-6, 2 ft.	R-17	12	5,500-5,999	0.40	R-38	R-18	R-21	R-10	R-9, 4 ft.	R-19	13	6,000-6,499	0.35	R-38	R-18	R-21	R-10	R-9, 4 ft.	R-20	14	6,500-6,999	0.35	R-49	R-21	R-21	R-11	R-11, 4 ft.	R-20	15	7,000-8,499	0.35	R-49	R-21	R-21	R-11	R-13, 4 ft.	R-20	16	8,500-8,999	0.35	R-49	R-21	R-21	R-18	R-14, 4 ft.	R-20	17	9,000-12,999	0.35	R-49	R-21	R-21	R-19	R-18, 4 ft.	R-20
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Anchor bolts in brick masonry	Question arose about the installation of an anchor bolt in an outer Wythe (brick) in a pier and curtain wall foundation. The code does not prohibit the installation of an anchor bolt in a bonded outer Wythe location. An anchor cannot be installed in the curtain wall section (between piers) but when the brick is properly bonded to a pier it can be in either the pier (CMU) or the outer brick.
2009 Code change handout	<p>17 page handout was distributed to the group and the bulk of the meeting dealt with covering some of the changes that will occur in 2009 which will have a mandatory enforcement date on permits issued after July 1<sup>st</sup>, 2009. The entire 17 document is too large to attach to minutes but will be posted on our website shortly. The following items were discussed, brief overview listed below:</p> <ul style="list-style-type: none"> <li>• R311.4.4 covers type of lock or latch for all interior and exterior egress doors will now prohibits the use of a double cylinder keyed lock (<b>all doors from habitable spaces interior and exterior</b>).</li> <li>• R401.3 site drainage. There are new requirements for site drainage that now define slope away from structures including concrete areas like patios. Patios/driveways will have to have a <b>2%</b> slope away from the structure. If you are unable to have a 6" in 10' fall away from a structure then the slope of the grade to a swale must be at <b>5%</b> and then the swale itself must be at a minimum <b>2%</b> slope to an approved point of discharge.</li> <li>• R602.6 added very specific limits on notching and boring of studs. Prohibits holes or notches in the top or bottom <b>6"</b> and limits the vertical height of a notch, requires notches to be on one edge only of a stud, and provides for clear distances from adjacent holes or notches.</li> <li>• R703.4 All exterior wall cladding material will now require an approved secondary barrier behind them, change will require wraps behind all vinyl/aluminum siding.</li> <li>• R703.8 the language talking about self flashing windows has been removed from the Code. <b>No window is self flashing</b> unless it has been tested by the manufacture as a self flashing unit.</li> <li>• R1101.8 All of chapter 11 has been re-written. Zones have changed but requirements in most of the State remain the same in the new zones. There is a new requirement for a builder certificate to be posted related to insulation used in floors, walls, ceiling, U factor on windows, etc... We are working on a sample certificate that can be used and will be available at the next consistency meeting.</li> </ul>